



STRATEGIES TO REDUCE FOOD WASTE IN CT

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WE USUALLY
FOCUS A LOT ON
RECYCLING

- Reduce
- Reuse
- Recycle



What's **IN**?
What's **OUT**?

Recycle **CT**

SUSTAINABLE MATERIALS MANAGEMENT

What is “Waste
Prevention”?



SUSTAINABLE MATERIALS MANAGEMENT

What is “Reuse”?

- Durable
- Repairable; remanufacture
- Finding new use
- Lengthen the life of something



SUSTAINABLE MATERIALS MANAGEMENT

We usually see the value
of repairing certain things,
like cars, our homes



SUSTAINABLE MATERIALS MANAGEMENT

But we change what we are willing to reduce or reuse when our perceived value of those items change.



SO, WHAT ABOUT FOOD?

- Reduce
- Reuse
- Recycle



SO, WHAT ABOUT FOOD?

- Reduce
- Reuse
- Recycle



SO, WHAT ABOUT FOOD?

- Reduce – Don't Waste Food
 - Eat the Banana
 - Over production?
 - Inventory management?
 - Storage?
 - Transportation practices



SO, WHAT ABOUT FOOD?

- Reuse Edible Food
 - Banana Bread
 - Smoothies
 - Freeze until you can use



SO, WHAT ABOUT FOOD?

- Recycle Food Scraps
 - Compost
 - Anaerobic digestion



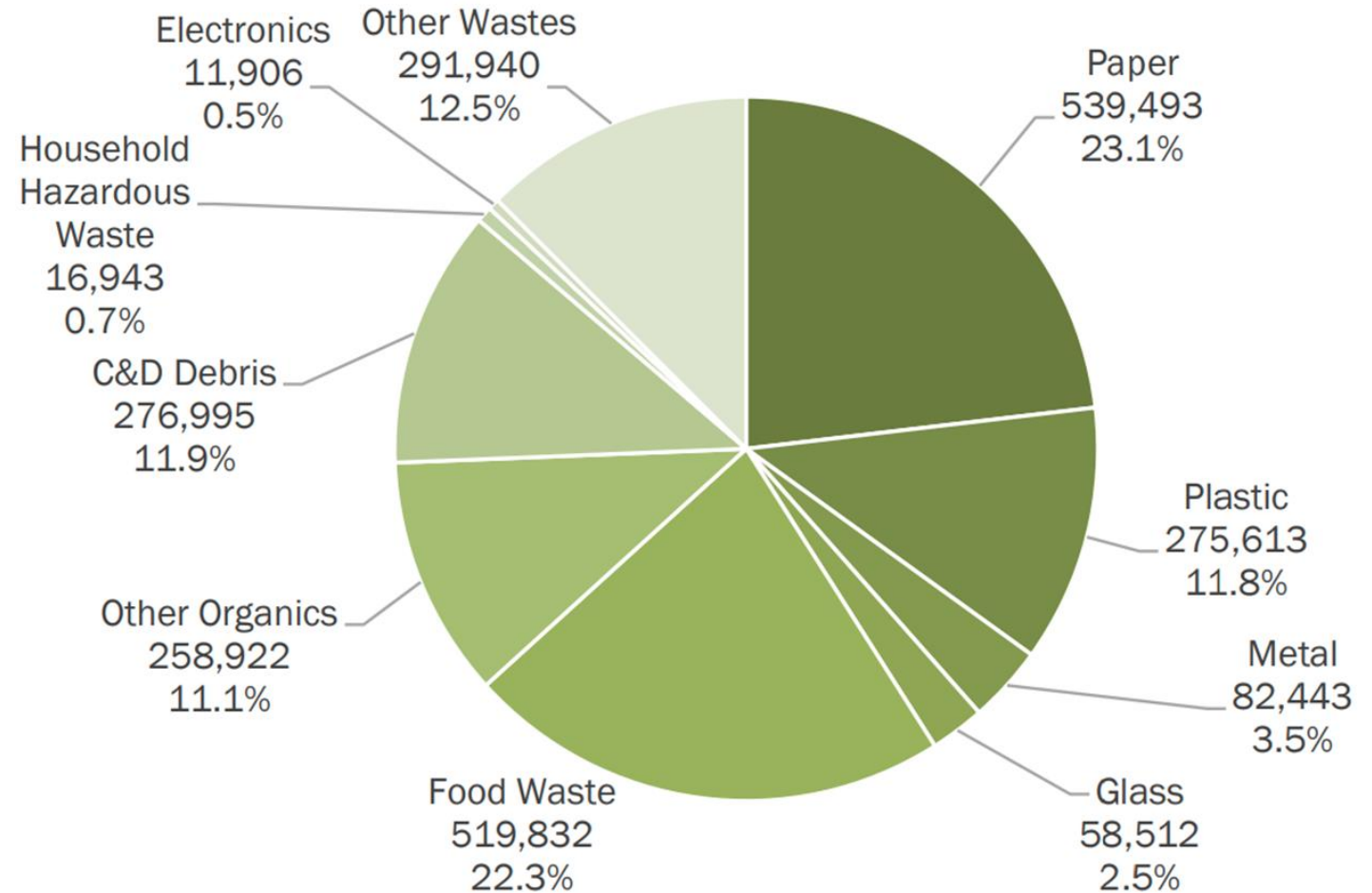
IS THERE A WASTE CRISIS?

- MIRA, A Waste-to-Energy facility in Hartford, closed in July 2022.
- Now, Connecticut is shipping about 40% of its Municipal Solid Waste (MSW) (est. 860,000 tons) per year to out-of-state landfills.
- Neither environmentally or economically sustainable.
- CT DEEP continues to seek and implement ways to address this crisis that prioritize source reduction and diversion.



FOOD WASTE IN CT MUNICIPAL SOLID WASTE

- Food waste represents about 22.3% of our municipal solid waste
- EPA has estimated, 70% of food waste was edible, 30% was never edible



WHEN WE WASTE FOOD...

- **We waste the land, water and energy it took to produce/grow it**
- We waste the resources to harvest, transport and package the food, which generates significant CO₂ emissions and;
- When food goes to landfill, it produces methane, a greenhouse gas



WHEN WE WASTE FOOD...

- We waste the land, water and energy it took to produce/grow it
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WHEN WE WASTE FOOD...

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AT THE SAME TIME, PEOPLE IN CT ARE FOOD INSECURE

- One in ten individuals in Connecticut experience hunger or are food insecure
- Amount of edible food wasted/year in CT could provide approximately 3,900 meals for each hungry person
- Recovering and redistributing edible food could be a significant step, but important to recognize it won't solve the root causes of hunger and poverty



The USDA defines food insecurity as **a lack of consistent access to enough food for every person in a household to live an active, healthy life.**

[Hunger in Connecticut | Connecticut Foodshare \(ctfoodshare.org\)](https://ctfoodshare.org)

COMMUNITY FOOD INSECURITY

Community food security is a condition in which all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance and social justice.

–Mike Hamm and Anne Bellows



Community food security represents a comprehensive strategy to address many of the ills affecting our society and environment due to an unsustainable and unjust food system.

FOOD WASTE PREVENTION VS FOOD RECOVERY

- **Food Waste Prevention:** involves taking actions to prevent food from becoming waste in the first place.
- Gets at the root of the issue, demanding substantial shifts in human behavior and a fundamental reevaluation of how stakeholders perceive food waste.

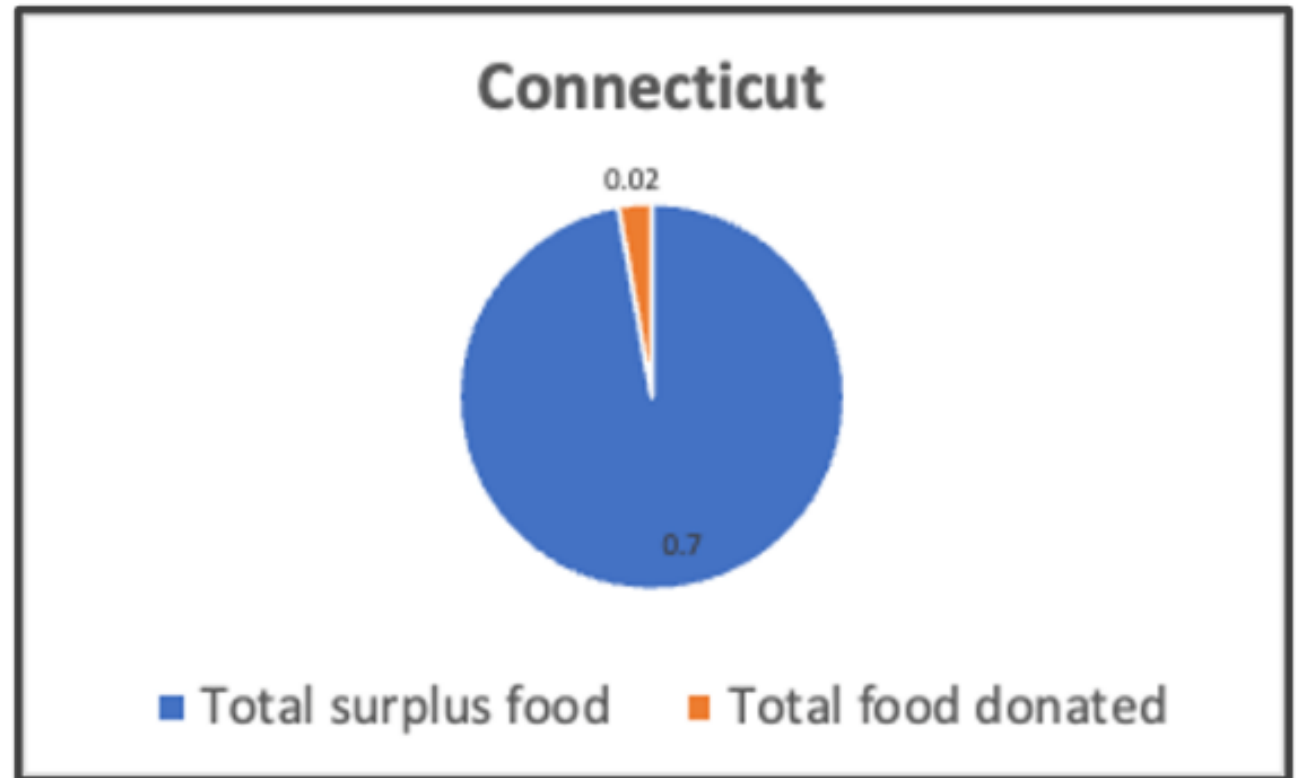
VS

- **Food Recovery:** Food recovery involves collecting edible food that would otherwise be wasted and redistributing it to those who can benefit from it.



FOOD WASTED IN CT

- According to ReFed data, Connecticut generated 700,000 tons of edible surplus food in 2021.
- ... and approximately 20,000 tons (less than 3%), was donated to food banks and food recovery organizations
- ... results in 97% of edible food is disposed, contributing to environmental issues further down the value chain (e.g greenhouse gas emissions and water footprint).





While food recovery serves as a commendable solution by addressing disparities within the system — utilizing edible food waste from diverse sources to combat issues such as food insecurity and hunger — it tends to bypass the underlying issue: why does our society discard perfectly edible food in the first place?

Amar Singh
EDF-ReFED Climate Fellow

Why does our society discard perfectly edible food in the first place?



SOME TERMS

- **Food Scraps:** Food scraps refer to the parts of food that are not intended for consumption, such as peels, cores, bones, and other inedible portions. Food scraps also include trimmings and leftovers from meal preparation, as well as any surplus food that isn't suitable for edible food donation.



SOME TERMS

- **Source-Separated Organic Materials (SSOM):**
“Source-separated organic material” means organic material, including, but not limited to, food scraps, food processing residue and soiled or unrecyclable paper that has been separated at the point or source of generation from nonorganic material.
CGS [Section 22a-226w](#)



SOME TERMS

- **Diversion:** Diversion refers to the practice of diverting organic materials, such as food scraps, leaf and yard debris, away from traditional disposal methods like landfills and incineration. Instead, these materials are directed towards more sustainable alternatives like composting or anaerobic digestion.



CT DEEP EFFORTS

- Commercial Organics Law
- Food Waste Prevention & Food Recovery Roadmap (still being drafted)
- Sustainable Materials Management Grant Program – UBP/Organics Co-Collection

CT DEEP EFFORTS



- Commercial Organics Law
 - On or after January 1, 2022, each commercial food wholesaler or distributor, industrial food manufacturer or processor, supermarket, resort or conference center that generate a projected annual volume of 26 tons or more per year of source separated organic materials (SSOM) and is located not more than 20 miles from an authorized SSOM composting facility.
 - **PA 23-170– On or after January 1, 2025**
 - Adds institutions - any establishment engaged in providing hospitality, entertainment or rehabilitation and health care services, and any hospital, public or private educational facility or correctional facility
 - Removes need to be within 20-miles of authorized SSOM composting facility – impacts all that generation 26 or more tons/year
- CT Food Waste Calculator
 - For businesses, schools and others - can help determine if law applies to you: [Connecticut Food Waste Estimation Guidance - CET Wasted Food Solutions \(cetonline.org\)](https://cetonline.org)

CT DEEP EFFORTS

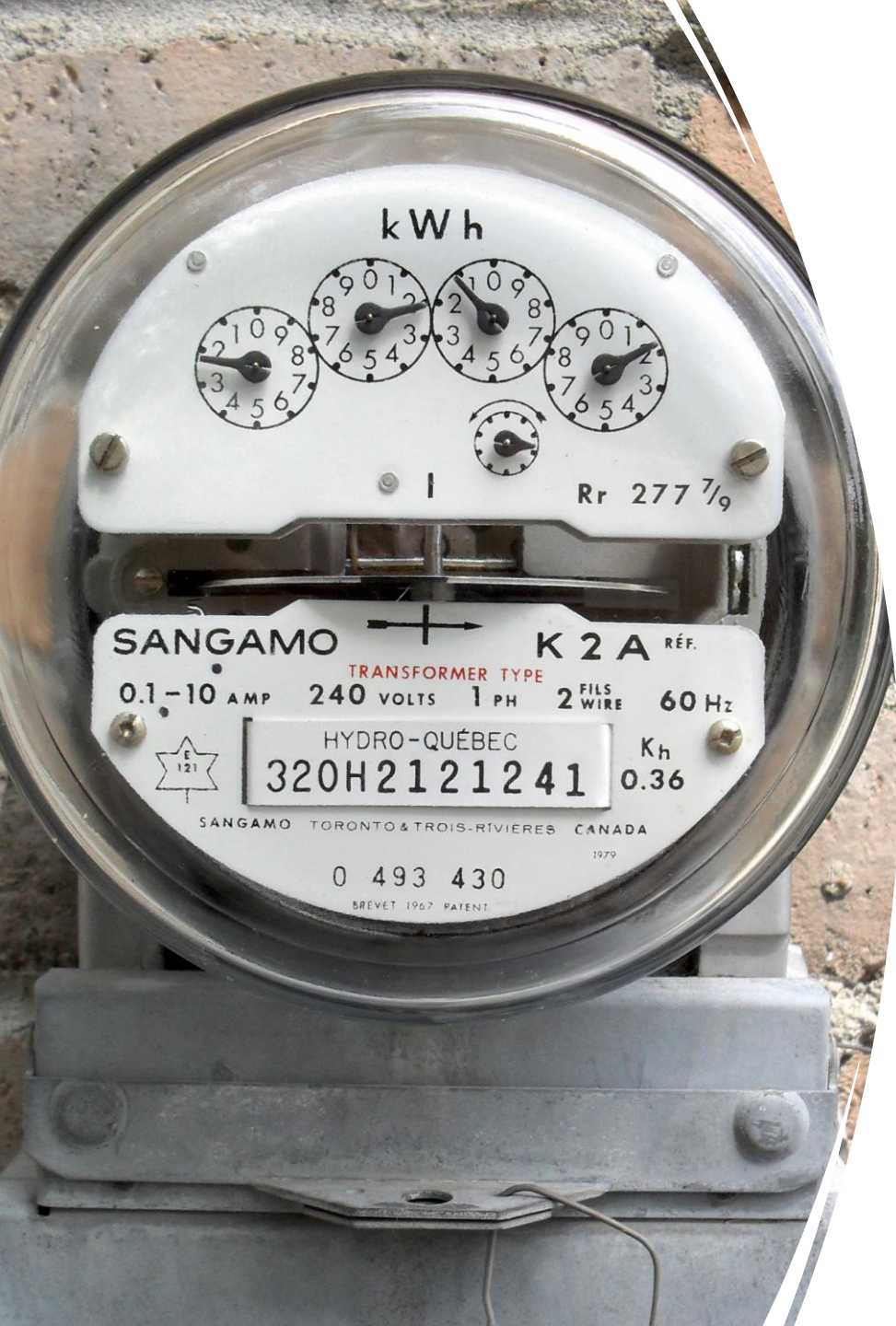
- Food Waste Prevention & Food Recovery Roadmap (still being drafted)
 - Seeking to better understand the issues and challenges; identify possible solutions to prevent food waste and recover more for human and animal consumption.
 - Listening sessions with food retailers, food recovery organizations, food banks, CT Department of Agriculture, and others.
 - Working Session seeking input from above, plus food justice, food insecurity and others.
 - High level needs identified: better date labelling & support for perishable food donations/recovery



CT DEEP EFFORTS



- Sustainable Materials Management Grant Program
 - Unit-based pricing – creates incentive to reduce waste, engage in reuse activities, recycle more, divert food scraps (by volume)
- Co-collection pilot programs
 - Curbside
 - Transfer station



UNIT BASED PRICING (UBP) IS THE SINGLE MOST EFFECTIVE WAY TO REDUCE WASTE AND CUT DISPOSAL COSTS

- Other approaches can help increase recycling and create less trash
 - **Remove food scraps & other compostable items from trash**
 - Donate and reuse clothing and other fabrics – sheets and towels
 - Extended Producer Responsibility (EPR) - manufacturers are responsible for the costs of disposal
- **UBP is the best option for CT to be self-sufficient**
 - Financially prudent – saves municipalities money through avoided disposal costs
 - Environmentally responsible – reduces waste and GHGs and increases recycling

SMM GRANT PROGRAM - INNOVATIVE SOLUTION TO REDUCE WASTE

- Grant funds and technical assistance available to help municipalities and regional waste authorities initiate and scale up Unit-Based Pricing (UBP) and/ or food scraps collection programs, pursuant to Public Act, Spec. Sess., June 2021, No. 21-2, § 308.

- **High-Level SMM Pilot Goals**

- Support municipalities in conducting waste reduction pilots that contain elements of both food scrap diversion and Unit-Based Pricing (UBP)
- Gather data that municipalities can use to estimate the costs/benefits of various diversion strategies as paths to permanence are considered.





CT MUNICIPAL EFFORTS

- Creating UBP/Co-collection programs (CT DEEP SMM Grant Program)
- Food Scrap Collection at Transfer Stations
- Zero Waste Schools Coalition – Cafeteria programs
 - Sharing tables, Food recovery, Food scrap collection
- Composting at transfer stations; developing new facilities



WHAT CAN I DO?

- Food Waste Prevention, food loss
 - Smart storage
 - Mindful meal planning - Shop for food based on your meal plan – try to avoid impulse buys
 - Make meals you have planned
 - If change of plans? Choose which meal or dish is best to be made and can be put in the freezer. Or freeze ingredients that may go bad/rot.
 - Creative cooking



WHAT CAN I DO?

- Creative cooking ... have leftover ingredients & not sure what to make? ...There's an App for that
 - SuperCook
 - Big Oven
 - Yummly
 - Tasty
 - Magic Fridge
 - America's Test Kitchen
 - Epicurious Recipes
 - MyFridgeFood
 - Whole Food Market Recipes
 - CookPad



WHAT CAN I DO?

- Food recovery, food rescue
 - Volunteer with local organizations ([Food Rescue US](#), [Haven's Harvest](#)) directly or perhaps through your faith or social community
 - Support food recovery and food rescue in your community
 - It's legal; federal and state liability protections
CT DEEP [Food Waste Reduction and Recovery](#)
 - Encourage your favorite food retailers and restaurants to donate excess or surplus food to a food recovery organization
 - Make more banana bread 😊



WHAT CAN I DO?

- Food Scrap Recycling
 - Home composting
 - Worm composting
- Food scrap collection programs
 - Local transfer station
 - Municipal curbside
 - Commercial curbside



HOME COMPOSTING

- Home composting
 - Leaf and yard debris
 - Food scraps
 - Garden trimmings, clipping
- Often excludes meat and dairy products, and paper products
- No compostable utensils or food service ware, no weeds or vines



WORM COMPOSTING

- Worm composting aka vermicomposting
 - Food scrap composting with a 'worm farm'
 - Indoor system; kitchen, basement, bathroom
 - *Eisenia foetida* – 'red wiggler worms' –
 - Eat bacteria off decaying food
 - Food scraps; not yard or garden debris
 - Don't particular like citrus
 - Castings/vermicompost (aka worm poop) fantastic plant fertilizer

FOOD SCRAP COLLECTION PROGRAMS



- What's IN, What's OUT?
 - Vegetable and fruit peels
 - Eggshells, tea bags, coffee grounds/bags
 - Uneaten food including breads, pasta, moldy fruits, rotten vegetables
- Often NOT included: compostable utensils, food service ware
- Need to check your program guidelines: bones, uneaten meat/fish and dairy; paper products
- NO: plastic, rubber bands, bags, ties, stickers

FOOD SCRAP COLLECTION: TOWN TRANSFER STATION

- Residents bring food scraps in weekly
- Some towns offer for free, others charge nominal fee
- Food scraps are picked up by commercial haulers and brought to commercial composting and/or anaerobic digestion facilities



FOOD SCRAP COLLECTION: TOWN TRANSFER STATION (IN ADDITION TO SMM GRANTEES)

- Darien
 - Glastonbury
 - New Fairfield
 - Newtown
 - Redding
 - Ridgefield
 - Mansfield
 - Westport
 - Greenwich
 - Windsor
 - Southbury
 - Branford
 - Killingworth
- And many more
I'm not aware of!!





BUSINESSES THAT COLLECT/HAUL FOOD SCRAPS

- **Action Waste Solutions** – services residents in Black Rock, Fairfield, Norwalk, Waste & Westport
- **All American Waste** – services commercial businesses
- **Blue Earth Compost** – services residents, municipalities and businesses
- **Casella** – services commercial businesses
- **Curbside Compost** – services residential and commercial locations
- **Peels and Wheels** – services New Haven (collection by bicycle)
- **USA Hauling & Recycling** – services commercial business



WHERE DOES IT GO?

- Authorized Commercial Compost Facilities (volume reduction facilities)
 - Aerobic composting
 - Anaerobic digestion, aerobic composting
- Community Compost Sites
- Municipal Transfer Stations/Demonstration Sites

FOOD WASTE COMPOSTING FACILITIES

[CT DEEP Food Residual Composting Facilities \(ct.gov\)](#)

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- The following tables identify the permitted composting and anaerobic digestion facilities allowed to accept food waste and the facilities undergoing permit review by the DEEP.
 - The type of permit they have, e.g. volume reduction or small scale, is largely depended upon the quantity and types of source separated organics they process.
 - Their permits dictate compliance with specific thresholds and material types, site plans, operation & management plans, reporting, and in some cases monitoring.
 - **Permitted Volume Reduction Anaerobic Digestion and Food Waste Composting Facilities** - These facilities hold an individual solid waste permit for the [Construction and Operation of a Solid Waste Facility](#). The [Current Food Waste Permitting Authorization Pathways](#) table provides additional authorization pathways for the management of food waste.
 - **Food Scrap Diversion Activities** - These facilities are registered under the [Connecticut Solid Waste Demonstration Project](#), Temporary authorization, Beneficial Use Determination or other.

Permitted Volume Reduction Anaerobic Digestion and Food Waste Composting Facilities

Town	Facility Name	Capacity	Types of Materials and Recycling Process
BERLIN² 76 Fuller Way	Bright Feeds	Phase 1: 100 TPD Phase 2: 450 TPD with depackaging	Food waste into animal feed supplement
ELLINGTON 235 Sadds Mill Rd.	WeCare Denali New England	43,500 TPY	Leaves, mixed yard waste, ground clean wood, food waste, paper mill sludge/fiber, drinking water treatment residuals, vegetable slurry, horse manure & stable bedding Outdoor Turned Windrow
THOMPSON 157 O'Leary Road	Fort Hill Farm AgGrid, LLC	31,300 TPY	Off-site food scraps; food processing residue; fats, oils and grease; and soiled or unrecyclable paper separated at the point or source of generation from nonorganic material Manure, bedding materials, spilled feed or feed waste; and water used in the neighboring dairy farm operation Anaerobic Digester
NEW MILFORD 60 Boardman Rd.	New Milford Farms	151,865 TPY	Food processing waste, yard and wood waste, livestock manures and bedding, food from restaurant and meal preparation establishments, hydrolyzed plant protein from on-site landfill, compostable plastics & coatings meeting ASTM D6400 & ASTM D6868 and certified by BPI. Indoor Turned Windrow with Forced Aeration
SOUTHINGTON 49 DePaolo Dr.	Quantum BioPower - Supreme Energy and Recycling	360 TPD	Food Waste, Food processing residue, liquid beverages, FOG (fats/oils/grease) Anaerobic Digester (Operational as of December 2016) Depackaging Building (Operational as of 2021)

Food Scrap Diversion Activities

[CT DEEP Food Residual Composting Facilities \(ct.gov\)](http://ct.gov)

Town	Facility Name	Capacity	Types of Materials and Recycling Process
BERLIN ² 76 Fuller Way	Bright Feeds	Phase 1: 100 TPD Phase 2: 450 TPD with depackaging supplement	Food waste into animal feed
DANBURY ³ 57 Great Plain Rd.	New England Resources, LLC	5,000 CY/YR <i>No solid waste permit required</i>	Horse manure & stable bedding (4,000 cy); commercial food waste (1,000 cy) Outdoor Turned Windrow Composting
LITCHFIELD 72 Little Pitch Rd.	Litchfield Recycling Center	6 CY/month	Food scrap composting with leaf composting
MANSFIELD 221 Warrenville Rd.	Town of Mansfield Transfer Station	12.6 Tons/Yr	Food scrap composting with leaf composting
MERIDEN ¹ 65 Triano Dr.	Central Connecticut Resource Recovery, Southington	4 TPD	Unit-based pricing/ co-collection pilot project
MIDDLETOWN ³ 180 Johnson St. & 685 Randolph Rd.	City of Middletown Transfer Station Satellite drop site for receipt and transfer	2, 35-gallon toters 1, 35-gallon toter	Food scrap composting
RIDGEFIELD 55 South St.	Town of Ridgefield Transfer Station	12 CY/ month	Food scrap composting with leaf composting
STONINGTON 154 Greenhaven Rd.	Stonington Transfer Station Operator - Southern CT Reg. Res. Recovery Authority	2 Pilot Batches: 70 tons total	Food scrap composting
WEST HAVEN 1 Kimberly Ave.	West Haven Lead Compost Facility	7 tons/ month for machine turned windrows, 104 tons total for ASP	Food scrap composting with leaf composting

RESOURCES

- For businesses [Connecticut - CET Wasted Food Solutions \(cetonline.org\)](https://cetonline.org)
- For schools [Zero Waste Schools Coalition \(wiltongogreen.org\)](https://wiltongogreen.org)
- Promote in 2024 – Food Waste Prevention Week (April) [Home | Food Waste Prevention Week](#)
- [Connecticut's Commercial Organics Recycling Law \(ct.gov\)](https://ct.gov)
- [Food Waste Reduction and Recovery](#)
- [Food Waste Prevention and Food Recovery Roadmap \(ct.gov\)](https://ct.gov)

WASTED FOOD

VS

FOOD SCRAPS



'SCUTTLEBUTT SAM' SAYS —

NOBODY LIKES
TO SEE
GOOD FOOD GO
TO **WASTE!**



**DO YOUR SHARE
TO SAVE IT !**